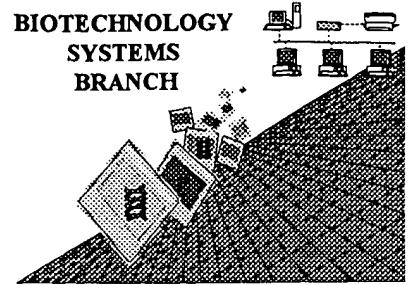


Style

RAW SEQUENCE LISTING

ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following CRF diskette:

Application Serial Number: 09/105,117F

Art Unit / Team No.: 1653

Date Processed by STIC: 11/4/99

THE ATTACHED PRINTOUT EXPLAINS THE ERRORS DETECTED.

PLEASE BE SURE TO FORWARD THIS INFORMATION TO THE APPLICANTS BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANTS ALONG WITH A NOTICE TO COMPLY or,

2) CALLING APPLICANTS AND FAXING THEM A COPY OF THE PRINTOUT WITH A NOTICE TO COMPLY

THIS WILL INSURE THAT THE NEXT SUBMISSION RECEIVED FROM THEM WILL BE ERROR FREE.

IF YOU HAVE ANY FURTHER QUESTIONS, PLEASE CALL:

MARK SPENCER 703-308-4212

Raw Sequence Listing Error Summary

<u>ERROR DETECTED</u>	<u>SUGGESTED CORRECTION</u>	<u>SERIAL NUMBER:</u> <u>09/105,117F</u>
ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE		
1 <input type="checkbox"/> Wrapped Nucleics	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3, as this will prevent "wrapping".	
2 <input type="checkbox"/> Wrapped Aminos	The amino acid number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3, as this will prevent "wrapping".	
3 <input type="checkbox"/> Incorrect Line Length	The rules require that a line not exceed 72 characters in length. This includes spaces.	
4 <input type="checkbox"/> Misaligned Amino Acid Numbering	The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs between the numbering. It is recommended to delete any tabs and use spacing between the numbers.	
5 <input type="checkbox"/> Non-ASCII	This file was not saved in ASCII (DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text so that it can be processed.	
6 <input type="checkbox"/> Variable Length	Sequence(s) <input type="checkbox"/> contain n's or Xaa's which represented more than one residue. As per the rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the (ix) feature section that some may be missing.	
7 <input type="checkbox"/> PatentIn ver. 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) <input type="checkbox"/> Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence.	
8 <input type="checkbox"/> Skipped Sequences (OLD RULES)	Sequence(s) <input type="checkbox"/> missing. If intentional, please use the following format for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (i) SEQUENCE CHARACTERISTICS: (Do not insert any headings under "SEQUENCE CHARACTERISTICS") (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: This sequence is intentionally skipped Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).	
9 <input type="checkbox"/> Skipped Sequences (NEW RULES)	Sequence(s) <input type="checkbox"/> missing. If intentional, please use the following format for each skipped sequence. <210> sequence id number <400> sequence id number 000	
10 <input checked="" type="checkbox"/> Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Use of <220> to <223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
11 <input type="checkbox"/> Use of <213>Organism (NEW RULES)	Sequence(s) <input type="checkbox"/> are missing this mandatory field or its response.	
12 <input type="checkbox"/> Use of <220>Feature (NEW RULES)	Sequence(s) <input type="checkbox"/> are missing the <220>Feature and associated headings. Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown" Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)	
13 <input type="checkbox"/> PatentIn ver. 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other means to copy file to floppy disk.	

PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/105,117FDATE: 11/04/1999
TIME: 15:34:10

Input Set: I105117F.RAW

This Raw Listing contains the General Information
Section and up to first 5 pages.

1 <110> APPLICANT: Vrjic, Marina
2 Eggeling, Lothar
3 Sahm, Harmann
4 <120> TITLE OF INVENTION: PROCESS FOR THE MICROBIAL PRODUCTION OF AMINO ACIDS BY
5 BOOSTED ACTIVITY OF EXPORT CARRIERS
6 <130> FILE REFERENCE: fj122 oct99
7 <140> CURRENT APPLICATION NUMBER: US/09/105,117F
8 <141> CURRENT FILING DATE: 1998-06-17
9 <150> EARLIER APPLICATION NUMBER: PCT/DE96/02485
10 <151> EARLIER FILING DATE: 1996-12-18
11 <150> EARLIER APPLICATION NUMBER: 195 48 222.0
12 <151> EARLIER FILING DATE: 1995-12-22
13 <160> NUMBER OF SEQ ID NOS: 3
14 <170> SOFTWARE: PatentIn Ver. 2.1
15 <210> SEQ ID NO 1
16 <211> LENGTH: 290
17 <212> TYPE: PRT
18 <213> ORGANISM: Corynebacterium glutamicum
19 <400> SEQUENCE: 1
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21 1 5 10 15
22 Ser Phe Glu Gly Ala Ser Leu Ala Leu Ser Ile Ser Pro Ser Ala Val
23 20 25 30
24 Ser Gln Arg Val Lys Ala Leu Glu His His Val Gly Arg Val Leu Val
25 35 40 45
26 Ser Arg Thr Gln Pro Ala Lys Ala Thr Glu Ala Gly Glu Val Leu Val
27 50 55 60
28 Gln Ala Ala Arg Lys Met Val Leu Leu Gln Ala Glu Thr Lys Ala Gln
29 65 70 75 80
30 Leu Ser Gly Arg Leu Ala Glu Ile Pro Leu Thr Ile Ala Ile Ala Ala
31 85 90 95
32 Asp Ser Leu Ser Thr Trp Phe Pro Pro Val Phe Ala Glu Val Ala Ser
33 100 105 110
34 Trp Gly Gly Ala Thr Leu Thr Leu Arg Leu Glu Asp Glu Ala His Thr
35 115 120 125
36 Leu Ser Leu Leu Arg Arg Gly Asp Val Leu Gly Ala Val Thr Arg Glu
37 130 135 140
38 Ala Ala Pro Val Ala Gly Cys Glu Val Val Glu Leu Gly Thr Met Arg
39 145 150 155 160
40 His Leu Ala Ile Ala Thr Pro Ser Leu Arg Asp Ala Tyr Met Val Asp
41 165 170 175
42 Gly Lys Leu Asp Trp Ala Ala Met Pro Val Leu Arg Phe Gly Pro Lys
43 180 185 190
44 Asp Val Leu Gln Asp Arg Asp Leu Asp Gly Arg Val Asp Gly Pro Val

Does Not Comply
Corrected Diskette Needed
pp 2-3

PAGE: 2

RAW SEQUENCE LISTING

PATENT APPLICATION US/09/105,117F

DATE: 11/04/1999

TIME: 15:34:10

Input Set: I105117F.RAW

45 195 200 205
 46 Gly Arg Arg Arg Val Ser Ile Val Pro Ser Ala Glu Gly Phe Gly Glu
 47 210 215 220
 48 Ala Ile Arg Arg Gly Leu Gly Trp Gly Leu Leu Pro Glu Thr Gln Ala
 49 225 230 235 240
 50 Ala Pro Met Leu Lys Ala Gly Glu Val Ile Leu Leu Asp Glu Ile Pro
 51 245 250 255
 52 Ile Asp Thr Pro Met Tyr Trp Gln Arg Trp Arg Leu Glu Ser Arg Ser
 53 260 265 270
 54 Leu Ala Arg Leu Thr Asp Ala Val Val Asp Ala Ala Ile Glu Gly Leu
 55 275 280 285

56 Arg Pro

57 290

58 <210> SEQ ID NO 2

59 <211> LENGTH: 2990

60 <212> TYPE: DNA

61 <213> ORGANISM: Corynebacterium glutamicum

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 65 ccgrgaadvv acagacactc agatcgatct cttagatctaa ggtccgcggg agcaacgggt 180
 66 atgttagccac adtrasrsrw rwymtcagtt acccatagag tagctccctcc tagtgaagag 240
 67 gacgaaaatc gtaccctcggt cgaacddvga kmaaccaaag cccttcttca ggggttgggt 300
 68 ccggagccgc ttaacggagt ggttttggaa ggcgtgwgr raggagctgc cctgttacct 360
 69 atgcgcggac gcgggggtgtc ctggtagctc cgccggcagg tccagsvsrv rrgvgdvrld 420
 70 dtgccagaac ttcgtgtaga aaccctggct tcgcattctg cccgtagcgt cgggttagat 480
 71 crdvdkrvm aawdaaaggg tagttgtac atccgttaggg cgttactccc ccaacgttac 540
 72 cggttacccg cgtakgdvmy adrstaahrm ccaagggttca agatgtatgaa gtgtaggcg 600

W-->

73 *see item 10* gtccttaat cgaagtgcgg aatggcgagg tgvcgavna rtvagatttt gtagaggtgc 660

W-->

74 *or* ggcgtcggtt ctattacaca cgcgaagtag aagggtcgcc tcgcavdgrs sthadrtctc 720

W-->

75 *Error* gcaacgaggt ggggttcttc gatggagcaa cttgtgcctt cctttggtagt acctatctag 780

W-->

76 *unusual* gwsavnvwts gcttagacgc aactaccgct accaattgcct ctaaagtgcgt tccgcaggc 840

W-->

77 *aberrant* tatcaacgcg sdanatargs aaaatcaaag acgaacgtcg ttgtgtaaa aggccgcacg 900

W-->

78 *aberrant* aacgtttcc tgaagtggc gktavmkraa vvgaaaagcca acgaaaaccgg ccaacccacg 960

W-->

79 *aberrant* cgctatggtt gtgagctggg tgcactacga gctctakatr svvrvvhhtc gaaattgcgc 1020

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80 *aberrant* gactgagtgg cgctcccccc tttacccccc ccgattccctc cgccgaagak vrvsvassss 1080

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81 *aberrant* agtabrcgsy sgcttcgacg gaagtagtta ctaactctcg tttcacaggt caacttaccc 1140

W-->

82 *This pertains* caagtatgcc ttcataatg attgagagca aagtgtccag ttgaatgggg ttcataaagc 1200

W-->

83 *This pertains* tsgdstdnmr bsatattaaa ccatgttaag aaccaatcat tttacttaag tacttccata 1260

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84 ggtcacatg gtmvysgatc atggaaatct tcattacagg tctgcttttg gggccagtc 1320

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86 gcgcaagga ctatttcggg ttctnnvkgk rgavtctcggt gtgttaatt tctgacgtct 1440

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87 ttttgttcat cggccgcacc ttggcggtt atctvcsva gtvdttgt ccaatgcgc 1500

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89 tatggttgc cgtcatggca gcgaaaagacg ccatgacaaa caaggtggaa gcgccacawa 1620

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90 vmaakdamtn kvagatcatt gaagaaacag aaccaaccgt gcccgtatgac acgccttttg 1680

W-->

91 gcggttccgc ggtttvddtg gsavggccac tgacacgcgc aaccgggtgc ggggtggaggt 1740

W-->

92 gacgctcgat aacgacgggg tttgatdtrn rvrvsvdkr vwgtaaagc ccatgttgc 1800

W-->

93 *W-->* ggcaatcgtg ctgacccgtt tgaacccgaa tgcgtatttg gavkmavtw nnaydcgcgt 1860

94 ttgtgttat cggccgcgtc ggcgcgcaat acggcgacac cggacggtgg attttavggv 1920

Sample
of
error

recurring
throughout
the
sequence

at
beginning of line

PAGE : 3

**RAW SEQUENCE LISTING
PATENT APPLICATION US/**

DATE: 11/04/1999
TIME: 15:34:10

Input Set: I105117F.RAW

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 96 cggcgcagca agaaaswvvgg aaagcattgt cacccccgct gtccagcccc aagggtgtggc 2040
 97 *See Jan 10* gctggatcaa cgtcgtcgta gcasrsskvw rwnvvatab rtgsttrnrt kctactggcg 2100
 98 taaccggtag tttgactaca actacccaat caaaagcgcc caaaaagttg tgatgaccgc 2160
 99 attggccatc aaactgatgt tgatgggta gtttcgcgg gvvmtaakmm gysccttagc 2220
 100 caccggaaagc gggtttacaa ctacggccgc agcaccctt agagtagcta gctsdtakaw 2280
 101 *or* ngadhsdaga ggttgagccg cagtctttg aggttcaaca actcaacttag ttccgacaac 2340
 102 *Even* W--> 103 *summary* aggtcgacac snnsdsndga gttgactgt tcgtggtag ttacgtgacc agtgcctag 2400
 104 *Meet* ggcggcatg agaggaacvs sagastvtda gyggagcgcg tcgtgggtac gttcgcggta 2460
 105 gacgcgttca ctgacggcg caaggaccgg ctarvwaama sgracagtaa ctgcAACGCC 2520
 106 tggtatagtt ataacaagtg caagttgtac gggagtctgt ccctdnkrvm dnnvnmgssg 2580
 107 aatgggaccg accgcgcct tgggagacct taagtagct ctataaacag gcactcgtck 2640
 108 gsarssgdyk dtcggacgc gttcaccact cttcgttac tgccgttctg gtaacaaccg 2700
 109 tcgactgacg ttgasavgn naasgttcaa gagttggcagt agcgggccaa ggaggtgggt 2760
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 111 gaggaggcgg tacttgagtc ggcggaggcg acactchcga maaatgagac ctggcattct 2880
 112 tcttatggg tgcatattcgc gaaaggct gcgtgttac agtgcgyssg vyakgsavdr 2940
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 115 <211> LENGTH: 236
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 117 <213> ORGANISM: Corynebacterium glutamicum
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 121 20 25 30
 122 Ile Lys Arg Glu Gly Leu Ile Ala Val Leu Leu Val Cys Leu Ile Ser
 123 35 40 45
 124 Asp Val Phe Leu Phe Ile Ala Gly Thr Leu Gly Val Asp Leu Leu Ser
 125 50 55 60
 126 Ala Ala Ala Pro Ile Val Leu Asp Ile Met Arg Trp Gly Gly Ile Ala
 127 65 70 75 80
 128 Tyr Leu Leu Trp Phe Ala Val Met Ala Ala Lys Asp Ala Met Thr Asn
 129 85 90 95
 130 Lys Val Glu Ala Pro Gln Ile Ile Glu Glu Thr Glu Pro Thr Val Pro
 131 100 105 110
 132 Asp Asp Thr Pro Leu Gly Gly Ser Ala Val Ala Thr Asp Thr Arg Ala
 133 115 120 125
 134 Arg Val Arg Val Glu Val Ser Val Asp Lys Gln Arg Val Trp Val Lys
 135 130 135 140
 136 Pro Met Leu Met Ala Ile Val Leu Thr Trp Leu Ala Pro Ala Ala Tyr
 137 145 150 155 160
 138 Leu Asp Ala Phe Val Phe Ile Gly Gly Val Gly Ala Gln Tyr Gly Asp
 139 165 170 175
 140 Thr Gly Arg Trp Ile Phe Ala Ala Gly Ala Phe Ala Ala Ser Leu Ile
 141 180 185 190
 142 Trp Phe Pro Leu Val Gly Phe Gly Ala Ala Leu Ser Arg Pro Leu
 143 195 200 205
 144 Ser Ser Pro Lys Val Trp Arg Trp Ile Asn Val Val Val Ala Val Val

PAGE: 4

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/105,117FDATE: 11/04/1999
TIME: 15:34:10

Input Set: I105117F.RAW

145	210	215	220
146	Met Thr Ala Leu Ala Ile Lys Leu Met Leu Met Gly		
147	225	230	235

VERIFICATION SUMMARY
PATENT APPLICATION US/09/105,117FDATE: 11/04/1999
TIME: 15:34:10

Input Set: I105117F.RAW

Line ? Error/Warning

73 W "N" or "Xaa" used: Feature required
76 W "N" or "Xaa" used: Feature required
77 W "N" or "Xaa" used: Feature required
83 W "N" or "Xaa" used: Feature required
86 W "N" or "Xaa" used: Feature required
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Original Text

gtgccctaat cgaagtgcgg aatggcgagg tgvvcgav
gwsavnvwts gcttagacgc aactaccgct accaattg
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